# Index to Volume 109


## A

Adults, Developmental components of resting ventilation among high- and low-altitude Andean children and . . . . . 295
African-Ecuadorian communities of Esmeraldas, genetic population structure of two . . . . . 159
AIELLO, LESLIE C., BERNARD WOOD, CATHY KEY, AND MARK LEWIS. Morphological and taxonomic affinities of the olduvai ulna (OH 36) . . . . . 89
ALEXANDER, J.P. See Rose K.D. . . . . 523
α-thalassemia, oxidative stress, and hemoglobin oxidation, resistance to *Falciparum* malaria in . . . . . 269
*Alu* insertion polymorphism in a baboon hybrid zone . . . . . 1
AMAYO, GLENDA. See Frisancho, A. Roberto. . . . . 295
Amazon region as revealed by mtDNA and Y-DNA, differential contribution of indigenous men and women to the formation of an urban population in the . . . . . 175
ANDINO, LOURDES M. See Szmulewicz, Martin N. . . . . 1
Antartic scenario and the floating Island Model, Origin of Platyrrhines: an evaluation of the. . . . . 541
Anthropoid primates based on condylar movements during mastication, model of temporomandibular joint function in . . . . . 67
ARRIAZA, B. See Rothschild, B.M. . . . . 259
Articular surface defects in the third metatarsal and third cuneiform: nonosseous tarsal coalition. . . . . 53

## B

Baboon hybrid zone, *Alu* insertion polymorphism in a. . . . . 1
BAMSHAD, M. See Watkins, W.S. . . . . 147
BARCELONA, VERONICA. See Frisancho, A. Roberto. . . . . 295
BARROS, A.M. See Neves, Walter A. . . . . 253
BARTON, SARA A. See Cerda-Flores, Ricardo M. . . . . 281
BATISTA DOS SANTOS, SIDNEY E., J.D. RODRIGUES, A.K.C. RIBEIRO-DOS-SANTOS, AND M.A. ZAGO. Differential contribution of indigenous men and women to the formation of an urban population in the Amazon region as revealed by mtDNA and Y-DNA . . . . . 175
β-fibrinogen allele frequencies in Peruvian Quechua, high-altitude native population. . . . . 181
BHANU, A. See Watkins, W.S. . . . . 147
BHASKARA RAO, B. See Watkins, W.S. . . . . 147
Biochemical behavior of molars of *homo*, *Pan*, and *Pongo*, effects of loading on the . . . . . 211
BIONDI, G. See Martínez-Labarga, Cristina . . . . . 159
Blood group markers, Estimation of nonpaternity in the Mexican population of Nuevo Leon: a validation study with . . . . . 281
Body mass estimates for *omomys carteri*, a Middle Eocene primate from North America, new. . . . . 41
Book reviews: James H. Kidder and Murray K. Marks. . . . . 275
Book reviews: Richard L. Jantz and Milford H. Wolpoff . . . . . 415
*Book Reviews:* Joseph F. Powell and Kenneth M. Weiss . . . . . 143
*Book Reviews.* Liza J. Shapiro and Rose A. Tyson . . . . . 561
BORTOLINI, MARIA CÁTIRA. See Da Silva, Jr., Wilson Araújo . . 425
Brazilian Amazonia, enamel hypoplasias in Tupí-Mondé Amerindians from the . . . . . 111
Brief communication: Giovanni Destro-Bisol, Ernesto D'Aloja, Gabriella Spedini, Robert Scatena, Bruno Giardina, and Vincenzo Pascali. Resistance to *Falciparum* malaria in α-thalassemia, oxidative stress, and hemoglobin oxidation. . . . . 269
BRUSH JASON A. See Hamrick, Mark W. . . . . 397

## C

Captive male orangutans: implications for understanding developmental arrest, reproductive hormone profiles in. . . . . 19
CASE, D. TROY. See Regan, Marcia H. . . . . 53
CASTALLANO, HERNAN MENDEZ. See Da Silva, Jr., Wilson Araújo . . . . . 425
Central Canadian Arctic: biocultural explanations for ethnic differences, plasma phospholipid fatty acids in the . . . . . 9
CERDA-FLORES, RICARDO M., SARA A. BURTON, LUISA F. MARTY-GONZALEZ, FERNANDO RIVAS, AND RANAJIT CHAKRABORTY. Estimation of nonpaternity in the Mexican population of Nuevo Leon: a validation study with blood group markers . . . . . 281
(*cercopithecus ascanius*): implications for understanding hominoid and cercopithecine fruit-processing strategies and seed dispersal, Seed handling in chimpanzees (*Pan troglodytes*) and redtail monkeys . . . . . 365
CHAKRABORTY, RANAJIT. See Cerda-Flores, Ricardo M. . . 281
Changes in the pattern of tooth wear from prehistoric to recent periods in Japan . . . . . 485
Child growth and nutritional status in a high-poverty community in eastern Kentucky . . . . . 129
Chimpanzees, demographic influences on the hunting behavior of . . . 439
Chimpanzees (*Pan troglodytes*) and redtail monkeys (*cercopithecus ascanius*): implications for understanding hominoid and cercopithecine fruit-processing strategies and seed dispersal, seed handling in . . . . . 365
CLEAVES BRUNDIGE, JULIET. See Regan, Marcia H. . . . 53
COIMBRA, JR., CARLOS E. See Santos, Ricardo V. . . . . 111
Condylar movements during mastication, model of temporomandibular joint function in anthropoid primates based on . . . . . 67
Contribution of indigenous men and women to the formation of an urban population in the Amazon region as revealed by mtDNA and Y-DNA, differential . . . . . 175
CORBO, R.M. See Martínez-Labarga, Cristina . . . . . 159
COSTA, M.A. See Neves, Walter A. . . . . 253
COVERT, HERBERT H. See Payseur, Bret A. . . . . 41
Cranial capacity and performance on delay-response task correlated with principal sulcus length in monkeys . . . . . 33
CROOKS, DEBORAH L. Child growth and nutritional status in a high-poverty community in eastern Kentucky. . . . . 129
Cross-Sectional morphology of the SK 82 and 97 Proximal Femora . . 509
CZEKALA, NANCY M. See Maggioncalda, Anne N. . . . . 19

## D

DA SILVA, JR., WILSON ARAÚJO, MARIA CÁTIRA BORTOLINI, DIOGO MEYER, FRANCISCO MAURO SALZANO, JACQUES ELION, RAJAGOPAL KRISHNAMOORTHY, MARIA PAULA CRUZ SCHNEIDER, DINORAH CASTRO DE GUERRA, ZULAY LAYRISSE, HERNAN MENDEZ CASTALLANO, TANIA DE AZEVEDO WEIMER, AND MARCO ANTONIO ZAGO. Genetic diversity of two African and sixteen South American populations determined on the basis of six hypervariable loci . . . . . 425
DAGOSTO, MARIAN. See Payseur, Bret A. . . . . 41
DAS, P.K. See Watkins, W.S. . . . . 147
DAVENPORT, GRECIA. See Frisancho, A. Roberto . . . . . 295
DE GUERRA, DINORAH CASTRO. See Da Silva, Jr., Wilson Araújo . . . . . 425
DE STEFANO, G.F. See Martínez-Labarga, Cristina . . . . . 159
Delay-response task correlated with principal sulcus length in monkeys, cranial capacity and performance on . . . . . 33
Demographic influences on the hunting behavior of chimpanzees . . . 439
Developmental arrest, reproductive hormone profiles in captive male orangutans: implications for understanding . . . . . 19
Developmental components of resting ventilation among high- and low-altitude Andean children and adults . . . . . 295
DEVINE, DANA V. See Rupert, Jim L. . . . . 181
Diet, and tooth use in three Amerindian populations, incisor microwear . . . . . 387

Differential contribution of indigenous men and women to the formation of an urban population in the Amazon region as revealed by mtDNA and Y-DNA . . . . . 175
DISOTELL, TODD R. See Szmulewicz, Martin N. . . . . 1
DIXON, M.E. See Watkins, W.S. . . . . 147
DUTOUR, OLIVIER. See Herschkovitz, Israel. . . . . 303
DUTOUR, OLIVIER. See Rothschild, B.M. . . . . 259

## E

Early Holocene Human Skeleton From Gua Gunung Runtuh, Malaysia, Metric Analyses of an . . . . . 327
Eastern Kentucky, child growth and nutritional status in a high-poverty community in . . . . . 129
Effects of loading on the biochemical behavior of molars of *homo*, *Pan*, and *Pongo* . . . . . 211
ELION, JACQUES. See Da Silva, Jr., Wilson Araújo . . . . . 425
Enamel hypoplasias in Tupí-Mondé Amerindians from the Brazilian Amazonia . . . . . 111
Enhanced breathing control, Evolution of human speech: the role of . . . . . 341
Esmeraldas, genetic population structure of two African-Ecuadorian communities of . . . . . 159
Estimates of sexual dismorphism: the effects of intrasexual variability, univariate . . . . . 501
Estimation of nonpaternity in the Mexican population of Nuevo Leon: a validation study with blood group markers . . . . . 281
Ethnic differences, plasma phospholipid fatty acids in the Central Canadian Arctic: biocultural explanations for . . . . . 9
Evolution of human speech: the role of enhanced breathing control . . . . . 341

## F

FEDIGAN, LINDA MARIE. See Pavelka, Mary S. McDonald . . 455
Female japanese monkeys: a comparative life history perspective, reproductive termination in . . . . . 455
FISCHER, P. See Watkins, W.S. . . . . 147
Floating Island Model, Origin of Platyrrhines: an evaluation of the Antartic scenario and the . . . . . 541
Formation of an urban population in the Amazon region as revealed by mtDNA and Y-DNA, differential contribution of indigenous men and women to the . . . . . 175
Fracture trauma in a medieval British farming village. . . . . 229
FRISANCHO, A. ROBERTO, PATRICIA C. JULIAO, VERONICA BARCELONA, CARMELA E. KUDYBA, GLENDA AMAYO, GRECIA DEVANPORT, ALICIA KNOWLES, DANI SANCHEZ, MERCEDES VILLENA, ENRIQUE VARGAS, AND RUDY SORIA. Developmental components of resting ventilation among high- and low-altitude Andean children and adults . . . . . 295
Fruit-processing strategies and seed dispersal, Seed handling in chimpanzees (*Pan troglodytes*) and redtail monkeys (*cercopithecus ascanius*): implications for understanding hominoid and cercopithecine . . . . . 365

## G

GAI, P.B. See Watkins, W.S. . . . . 147
Genetic diversity of two African and sixteen South American populations determined on the basis of six hypervariable loci . . . . . 425
Genetic population structure of two African-Ecuadorian communities of Esmeraldas . . . . . 159
GERRARD, JON M. See Young, T. Kue . . . . . 9
Gliding behavior reconsidered, phalangeal morphology of the paromomyidae (?primates, plesiadapiformes): the evidence for . . . . . 397
GREENWALD, CHARLES. See Herschkovitz, Israel . . . . . 303
Growth patterns among seminomadic pastoralists (Datoga) of Tanzania . . . . . 187
Gua Gunung Runtuh, Malaysia, Metric Analyses of an Early Holocene Human Skeleton From . . . . . 327
GUEVARA, A.E.B. See Martínez-Labarga, Cristina . . . . . 159

## H

HAMRICK, MARK W., BURT A. ROSENMAN, AND JASON A. BRUSH. Phalangeal morphology of the paromomyidae (?primates, plesiadapiformes): the evidence for gliding behavior reconsidered . . . . . 397
Hemoglobin oxidation, resistance to *Falciparum* malaria in α-thalassemia, oxidative stress, and . . . . . 269
HERRERA, RENE J. See Szmulewicz, Martin N. . . . . 1
HERSCHKOVITZ, ISRAEL, CHARLES GREENWALD, BRUCE M. ROTHSCHILD, BRUCE LATIMER, OLIVIER DUTOUR, LYMAN M. JELLEMA, AND SUSANNE WISH-BARATZ. Hyperostosis frontalis interna: an anthropological perspective. . . . . 303
*"Hesperolemur" actius*, Skull of early *Cantius abditus* (Primates: Adapiformes) and Its Phylogenetic Implications, With a Reevaluation of . . . . . 523
HEWITT, GWEN P. See MacLarnon Ann M. . . . . 341
High- and low-altitude Andean children and adults, Developmental components of resting ventilation among . . . . . 295
High-poverty community in eastern Kentucky, child growth and nutritional status in a . . . . . 129
HOCHACHKA, PETER W. See Rupert, Jim L. . . . . 181
*Homo*, *Pan*, and *Pongo*, effects of loading on the biochemical behavior of molars of. . . . . 211
HOULE, ALAIN. The Origin of Platyrrhines: an evaluation of the Antartic scenario and the floating Island Model . . . . . 541
Hunting behavior of chimpanzees, demographic influences on the . . . . . 439
Hyperostosis frontalis interna: an anthropological perspective . . 303

## I

Incidence and distribution of post-cranial fractures in the prehistoric population of San Pedro de Atacama, Northern Chile . . . 253
Incisor microwear, diet, and tooth use in three Amerindian populations. . . . . 387
Index to Volume 109 . . . . . 567
Insertion polymorphism in a baboon hybrid zone, *Alu* . . . . . 1
Intrasexual variability, univariate estimates of sexual dismorphism: the effects of . . . . . 501

## J

JELLEMA, LYMAN M. See Herschkovitz, Israel. . . . . 303
JOLLY, CLIFFORD J. See Szmulewicz, Martin N. . . . . 1
JORDE, L.B. See Watkins, W.S. . . . . 147
JUDD, MARGARET A. AND CHARLOTTE A. ROBERTS. Fracture trauma in a medieval British farming village . . . . . 229
JULIAO, PATRICIA C. See Frisancho, A. Roberto. . . . . 295

## K

KAIFU, YOUSUKE. Changes in the pattern of tooth wear from prehistoric to recent periods in Japan . . . . . 485
KEY, CATHY. See Aiello, Leslie C. . . . . 89
KNOWLES, ALICIA. See Frisancho, A. Roberto. . . . . 295
KRISHNAMOORTHY, RAJAGOPAL. See Da Silva, Jr., Wilson Araújo . . . . . 425
KUDYBA, CARMELA E. See Frisancho, A. Roberto . . . . . 295
KUSUMA, Y.S. See Watkins, W.S. . . . . 147

## L

LAMBERT, JOANNA E. Seed handling in chimpanzees (*Pan troglodytes*) and redtail monkeys (*cercopithecus ascanius*): implications for understanding hominoid and cercopithecine fruit-processing strategies and seed dispersal . . . . . 365
LATIMER, BRUCE. See Herschkovitz, Israel . . . . . 303
LAYRISSE, ZULAY. See Da Silva, Jr., Wilson Araújo . . . . . 425
LEWIS, MARK. See Aiello, Leslie C. . . . . 89
LITTLETON, JUDITH. Palaeopathology of Skeletal Fluorosis. . 465
LUM, J.K. See Watkins, W.S. . . . . 147

## M

MACHO, GABRIELE A. AND IAIN R. SPEARS. Effects of loading on the biochemical behavior of molars of *homo*, *pan*, and *pongo*. . . . . 211
MACLARNON, ANN M. AND GWEN P. HEWITT. Evolution of human speech: the role of enhanced breathing control. . . . . 341
MACPHEE, R.D.E. See Rose K.D. . . . . 523
MAGGIONCALDA, ANNE N., ROBERT M. SAPOLSKY, AND NANCY M. CZEKALA. Reproductive hormone profiles in captive male orangutans: implications for understanding developmental arrest . . . . . 19
MARINI, ELISABETTA, WALTER RACUGNO, AND SILVANA M. BORGOGNINI TARLI. Univariate estimates of sexual dismorphism: the effects of intrasexual variability . . . . 501
MARTÍNEZ-LABARGA, CRISTINA, O. RICKARDS, R. SCACCHI, R.M. CORBO, G. BIONDI, J.A. PEÑA, C. VARAS DE VIEIRA, A.E.B. GUEVARA, M.S. MESA SANTURINO, AND G.F. DE STEFANO. Genetic population structure of two African-Ecuadorian communities of Esmeraldas . . . . . 159
MARTY-GONZALEZ, LUISA F. See Cerda-Flores, Ricardo M. . 281
Mastication, model of temporomandibular joint function in anthropoid primates based on condylar movements during. . . . . 67
MATSUMURA, HIROFUMI AND MAJID ZURAINA. Metric analyses of an early holocene human skeleton from Gua Gunung Runtuh, Malaysia . . . . . 327
MCHENRY, HENRY M. See Ruff, Christopher B. . . . . 509
Medieval British farming village, fracture trauma in a. . . . . 229
MESA SANTURINO, M.S. See Martínez-Labarga, Cristina . . . 159
Metacarpals, sexing potential of fragmentary and pathological . . 245
Metric Analyses of an Early Holocene Human Skeleton From Gua Gunung Runtuh, Malaysia . . . . . 327
Mexican population of Nuevo Leon: a validation study with blood group markers, Estimation of nonpaternity in the. . . . . 281
MEYER, DIOGO. See Da Silva, Jr., Wilson Araújo . . . . . 425
MITANI, JOHN C. AND DAVID P. WATTS. Demographic influences on the hunting behavior of chimpanzees . . . . . 439
Model of temporomandibular joint function in anthropoid primates based on condylar movements during mastication . . . . 67
Morphological and taxonomic affinities of the olduvai ulna (OH 36). . . . . 89
mtDNA and Y-DNA, differential contribution of indigenous men and women to the formation of an urban population in the Amazon region as revealed by . . . . . 175
Multiple origins of the mtDNA 9-bp deletion in populations of South India. . . . . 147

## N

NAIDU, J.M. See Watkins, W.S. . . . . 147
NEVES, WALTER A., A.M. BARROS, AND M.A. COSTA. Incidence and distribution of post-cranial fractures in the prehistoric population of San Pedro de Atacama, Northern Chile . . . . . 253
New body mass estimates for *omomys carteri*, a Middle Eocene primate from North America . . . . . 41
97 Proximal Femora, cross-sectional morphology of the SK 82 and . . . . . 509
Nubian erosive arthritis, spondyloarthropathy identified as the etiology of . . . . . 259
Nuevo Leon: a validation study with blood group markers, Estimation of nonpaternity in the Mexican population of . . . . 281
Nutritional status in a high-poverty community in eastern Kentucky, child growth and . . . . . 129

## O

Olduvai ulna (OH 36), morphological and taxonomic affinities of the . . . . . 89
*Omomys carteri*, a Middle Eocene Primate from North America, new body mass estimates for. . . . . 41
O'NEIL, JOHN D. See Young, T. Kue . . . . . 9
Origin of Platyrrhines: an evaluation of the Antartic scenario and the floating Island Model. . . . . 541
Origins of the mtDNA 9-bp deletion in populations of South India, multiple . . . . . 147

## P

Palaeopathology of Skeletal Fluorosis . . . . . 465
*Pan*, and *Pongo*, effects of loading on the biochemical behavior of molars of *homo*, . . . . . 211
(*Pan troglodytes*) and redtail monkeys (*cercopithecus ascanius*): implications for understanding hominoid and cercopithecine fruit-processing strategies and seed dispersal, seed handling in chimpanzees . . . . . 365
Paromomyidae (?primates, plesiadapiformes): the evidence for gliding behavior reconsidered, phalangeal morphology of the . . 397
Pattern of tooth wear from prehistoric to recent periods in Japan, changes in the . . . . . 485
PAVELKA, MARY S. MCDONALD AND LINDA MARIE FEDIGAN. Reproductive termination in female Japanese Monkeys: a comparative life history perspective . . . . . 455
PAYSEUR, BRET A., HERBERT H. COVERT, CHRISTOPHER J. VINYARD, AND MARIAN DAGOSTO. New body mass estimates for *Omomys carteri*, a Middle Eocene primate from North America . . . . . 41
PEÑA, J.A. See Martínez-Labarga, Cristina . . . . . 159
Peruvian Quechua, high-altitude native population, β-fibrinogen allele frequencies in . . . . . 181
Phalangeal morphology of the paromomyidae (?primates, plesiadapiformes): the evidence for gliding behavior reconsidered. . . . 397
Plasma phospholipid fatty acids in the Central Canadian Arctic: biocultural explanations for ethnic differences. . . . . 9
*Pongo*, effects of loading on the biochemical behavior of molars of *homo*, *Pan*, and. . . . . 211
Post-cranial fractures in the prehistoric population of San Pedro de Atacama, Northern Chile, incidence and distribution of . . . 253
PRASAD, B.V.R. See Watkins, W.S. . . . . 147
Prehistoric population of San Pedro de Atacama, Northern Chile, incidence and distribution of post-cranial fractures in the . . . . 253
Prehistoric to Recent periods in Japan, changes in the pattern of tooth wear from . . . . . 485

## R

RACUGNO, WALTER. See Marini, Elisabetta . . . . . 501
REATEGUI, ERIKA P. See Szmulewicz, Martin N. . . . . 1
REDDY, P.C. See Watkins, W.S. . . . . 147
REDDY, P.G. See Watkins, W.S. . . . . 147
REDMOND, JOHN C., JR. Cranial capacity and performance on delay-response task correlated with principal sulcus length in monkeys . . . . . 33

Redtail monkeys (*cercopithecus ascanius*): implications for understanding hominoid and cercopithecine fruit-processing strategies and seed dispersal, seed handling in chimpanzees (*Pan troglodytes*) and . . . . . 365
REGAN, MARCIA H., D. TROY CASE, AND JULIET CLEAVES BRUNDIGE. Articular surface defects in the third metatarsal and third cuneiform: nonosseous tarsal coalition. . . 53
Reproductive hormone profiles in captive male orangutans: implications for understanding developmental arrest. . . . . 19
Reproductive termination in female japanese monkeys: a comparative life history perspective . . . . . 455
Resistance to *Falciparum* malaria in α-thalassemia, oxidative stress, and hemoglobin oxidation . . . . . 269
Resting Ventilation among high- and low-altitude Andean children and adults, Developmental components of. . . . . 295
RIBEIRO-DOS-SANTÓS, A.K.C. See Batista Dos Santos, Sidney E. . . . . 175
RICKARDS, O. See Martínez-Labarga, Cristina . . . . . 159
RIVAS, FERNANDO. See Cerda-Flores, Ricardo M. . . . . 281
ROBERTS, CHARLOTTE A. See Judd, Margaret A. . . . . 229
RODRIGUES, J.D. See Batista Dos Santos, Sidney E. . . . . 175
ROSE, K.D., R.D.E. MACPHEE, AND J.P. ALEXANDER. Skull of early *Cantius abditus* (Primates: Adapiformes) and Its Phylogenetic Implications, With a Reevaluation of *"Hesperolemur" actius* . . . . . 523
ROSENMAN, BURT A. See Hamrick, Mark W.. . . . . 397
ROTHSCHILD, B.M., B. ARRIAZA, R.J. WOODS, AND OLIVIER DUTOUR. Spondyloarthropathy identified as the etiology of nubian erosive arthritis . . . . . 259
ROTHSCHILD, BRUCE M. See Herschkovitz, Israel . . . . . 303
RUFF, CHRISTOPHER B., HENRY M. MCHENRY, AND J. FRANCIS THACKERAY. Cross-Sectional morphology of the SK 82 and 97 Proximal Femora . . . . . 509
RUPERT, JIM L., DANA V. DEVINE, M. VICTORIA MONSALVE, AND PETER W. HOCHACHKA. β-fibrinogen allele frequencies in Peruvian Quechua, high-altitude native population . . . . . 181

## S

SALZANO, FRANCISCO MAURO. See Da Silva, Jr., Wilson Araújo . . . . . 425
San Pedro de Atacama, Northern Chile, incidence and distribution of post-cranial fractures in the prehistoric population of. . . . . 253
SANCHEZ, DANI. See Frisancho, A. Roberto . . . . . 295
SANTOS, RICARDO V. AND CARLOS E. COIMBRA, JR. Hardships of contact: enamel hypoplasias in Tupí-Mondé Amerindians from the Brazilian Amazonia. . . . . 111
SAPOLSKY, ROBERT M. See Maggioncalda, Anne N. . . . . 19
SCACCHI, R. See Martínez-Labarga, Cristina . . . . . 159
SCHNEIDER, MARIA PAULA CRUZ. See Da Silva, Jr., Wilson Araújo . . . . . 425
Seed dispersal, seed handling in chimpanzees (*Pan troglodytes*) and redtail monkeys (*cercopithecus ascanius*): implications for understanding hominoid and cercopithecine fruit-processing strategies and . . . . . 365
Seed handling in chimpanzees (*Pan troglodytes*) and redtail monkeys (*cercopithecus ascanius*): implications for understanding hominoid and cercopithecine fruit-processing strategies and seed dispersal . . . . . 365
SELLEN, DANIEL W. Growth patterns among seminomadic pastoralists (Datoga) of Tanzania . . . . . 187
Sexing potential of fragmentary and pathological metacarpals . . 245
Six hypervariable loci, genetic diversity of two African and sixteen South American populations determined on the basis of. . . . . 425
Sixteen South American populations determined on the basis of six hypervariable loci, genetic diversity of two African and . . . . . 425
SK 82 and 97 Proximal Femora, cross-sectional morphology of the . . . . . 509
Skeletal Fluorosis, palaeopathology of . . . . . 465
Skull of early *Cantius abditus* (Primates: Adapiformes) and Its Phylogenetic Implications, With a Reevaluation of *"Hesperolemur" actius* . . . . . 523
SORIA, RUDY. See Frisancho, A. Roberto . . . . . 295
South India, multiple origins of the mtDNA 9-bp deletion in populations of . . . . . 147
SPEARS, IAIN R. See Macho, Gabriele A. . . . . 211
SPENCER, MARK A See Ungar, Peter S. . . . . 387
Spondyloarthropathy identified as the etiology of Nubian erosive arthritis . . . . . 259
STOJANOWSKI, CHRISTOPHER M. Sexing potential of fragmentary and pathological metacarpals. . . . . 245
Sulcus length in monkeys, cranial capacity and performance on delay-response task correlated with principal . . . . . 33
SZMULEWICZ, MARTIN N., LOURDES M. ANDINO, ERIKA P. REATEGUI, TAMSIN WOOLLEY-BARKER, CLIFFORD J. JOLLY, TODD R. DISOTELL, AND RENE J. HERRERA. *Alu* insertion polymorphism in a baboon hybrid zone . . . . . 1

## T

Tanzania, growth patterns among seminomadic pastoralists (Datoga) of. . . . . 187
TARLI, SILVANA M. BORGOGNINI. See Marini, Elisabetta . . 501
Taxonomic affinities of the olduvai ulna (OH 36), morphological and . . . . . 89
Temporomandibular joint function in anthropoid primates based on condylar movements during mastication, model of . . . . . 67
THACKERAY, J. FRANCIS. SeeRuff, Christopher B. . . . . 509
Third cuneiform: nonosseous tarsal coalition, articular surface defects in the third metatarsal and. . . . . 53
Third metatarsal and third cuneiform: nonosseous tarsal coalition, articular surface defects in the. . . . . 53
Three Amerindian populations, incisor microwear, diet, and tooth use in. . . . . 387
Tooth use in three Amerindian populations, incisor microwear, diet, and . . . . . 387
Tupí-Mondé Amerindians from the Brazilian Amazonia, enamel hypoplasias in . . . . . 111

## U

UNGAR, PETER S. AND MARK A SPENCER. Incisor microwear, diet, and tooth use in three Amerindian populations . . 387
Univariate estimates of sexual dismorphism: the effects of intrasexual variability. . . . . 501
Urban population in the Amazon region as revealed by mtDNA and Y-DNA, differential contribution of indigenous men and women to the formation of an . . . . . 175

## V

VARAS DE VIEIRA, C. See Martínez-Labarga, Cristina. . . . . 159
VARGAS, ENRIQUE. See Frisancho, A. Roberto . . . . . 295
VICTORIA MONSALVE, M. See Rupert, Jim L. . . . . 181
VILLENA, MERCEDES. See Frisancho, A. Roberto . . . . . 295
VINYARD, CHRISTOPHER J. See Payseur, Bret A. . . . . 41

## W

WALL, CHRISTINE E. Model of temporomandibular joint function in anthropoid primates based on condylar movements during mastication . . . . . 67

WATKINS, W.S., M. BAMSHAD, M.E. DIXON, B. BHASKARA RAO, J.M. NAIDU, P.G. REDDY, B.V.R. PRASAD, P.K. DAS, P.C. REDDY, P.B. GAI, A. BHANU, Y.S. KUSUMA, J.K. LUM, P. FISCHER, AND L.B. JORDE. Multiple origins of the mtDNA 9-bp deletion in populations of South India . . . . . 147
WATTS, DAVID P. See Mitani, John C. . . . . 439
WEIMER, TANIA DE AZEVEDO. See Da Silva, Jr., Wilson Araújo . . . . . 425
WISH-BARATZ, SUSANNE. See Herschkovitz, Israel . . . . . 303
WOOD, BERNARD. See Aiello, Leslie C. . . . . 89
WOODS, R.J. See Rothschild, B.M. . . . . 259
WOOLLEY-BARKER, TAMSIN. See Szmulewicz, Martin N. . . 1

## Y

YOUNG, T. KUE, JON M. GERRARD, AND JOHN D. O'NEIL. Plasma phospholipid fatty acids in the Central Canadian Arctic: biocultural explanations for ethnic differences. . . . . 9

## Z

ZAGO, MARCO ANTONIO. See Da Silva, Jr., Wilson Araújo. . . 425
ZAGO, M.A. See Batista Dos Santos, Sidney E. . . . . 175
ZURAINA, MAJID. See Matsumura, Hirofumi . . . . . 327

# AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY

*Official Publication of the American Association of Physical Anthropologists*


*EDITOR*
EMŐKE J.E. SZATHMÁRY
University of Manitoba

*ASSOCIATE EDITORS*

*REVIEW EDITOR*
LYLE W. KONIGSBERG
University of Tennessee

RUSSELL L. CIOCHON
University of Iowa
Iowa City

ANNE BRIGITTE DEMES
State University of New York
Stony Brook

DARNA L. DUFOUR
University of Colorado
Boulder

LINDA M. FEDIGAN
University of Alberta

M. ANNE KATZENBERG
University of Calgary

KENNETH A.R. KENNEDY
Cornell University

SUSAN G. LARSON
State University of New York
Stony Brook

CHARLES F. MERBS
Arizona State University
Tempe

GEORGE R. MILNER
Penn State University

JOHN H. RELETHFORD
State University of New York
College at Oneonta

JEFFREY A. ROGERS
Southwest Foundation for
Biomedical Research
San Antonio

SHELLEY R. SAUNDERS
McMaster University

PAUL W. SCIULLI
The Ohio State University
Columbus

PETER UNGAR
University of Arkansas
Fayetteville

BERNARD WOOD
George Washington University

ADRIENNE L. ZIHLMAN
University of California
Santa Cruz

*ASSISTANT EDITOR*
GEORGE A. REILLY
University of Manitoba



**VOLUME 109**
**MAY, JUNE,**
**JULY, AUGUST**
**1999**



**© 1999 Wiley-Liss Inc.**
**605 Third Ave.**
**New York, N.Y. 10158-0012**

## Contents

VOLUME 109
NUMBER 1

MAY 1999


MARTIN N. SZMULEWICZ, LOURDES M. ANDINO, ERIKA P. REATEGUI, TAMSIN WOOLLEY-BARKER, CLIFFORD J. JOLLY, TODD R. DISOTELL, AND RENE J. HERRERA. An *Alu* Insertion Polymorphism in a Baboon Hybrid Zone . . . . . 1

T. KUE YOUNG, JON M. GERRARD, AND JOHN D. O'NEIL. Plasma Phospholipid Fatty Acids in the Central Canadian Arctic: Biocultural Explanations for Ethnic Differences. . . . . 9

ANNE N. MAGGIONCALDA, ROBERT M. SAPOLSKY, AND NANCY M. CZEKALA. Reproductive Hormone Profiles in Captive Male Orangutans: Implications for Understanding Developmental Arrest . . . . . 19

JOHN C. REDMOND, JR. Cranial Capacity and Performance on Delay-Response Task Correlated With Principal Sulcus Length in Monkeys . . . . . 33

BRET A. PAYSEUR, HERBERT H. COVERT, CHRISTOPHER J. VINYARD, AND MARIAN DAGOSTO. New Body Mass Estimates for *Omomys carteri,* a Middle Eocene Primate From North America . . . . . 41

MARCIA H. REGAN, D. TROY CASE, AND JULIET CLEAVES BRUNDIGE. Articular Surface Defects in the Third Metatarsal and Third Cuneiform: Nonosseous Tarsal Coalition . . . . . 53

CHRISTINE E. WALL. A Model of Temporomandibular Joint Function in Anthropoid Primates Based on Condylar Movements During Mastication . . . . . 67

LESLIE C. AIELLO, BERNARD WOOD, CATHY KEY, AND MARK LEWIS. Morphological and Taxonomic Affinities of the Olduvai Ulna (OH 36) . . . . . 89

RICARDO V. SANTOS AND CARLOS E. COIMBRA, JR. Hardships of Contact: Enamel Hypoplasias in Tupí-Mondé Amerindians From the Brazilian Amazonia . . . . . 111

DEBORAH L. CROOKS. Child Growth and Nutritional Status in a High-Poverty Community in Eastern Kentucky . . . . . 129

*Book Reviews.* JOSEPH F. POWELL AND KENNETH M. WEISS . . . . . 143


## Contents

VOLUME 109
NUMBER 2

JUNE 1999


W.S. WATKINS, M. BAMSHAD, M.E. DIXON, B. BHASKARA RAO, J.M. NAIDU, P.G. REDDY, B.V.R. PRASAD, P.K. DAS, P.C. REDDY, P.B. GAI, A. BHANU, Y.S. KUSUMA, J.K. LUM, P. FISCHER, AND L.B. JORDE. Multiple Origins of the mtDNA 9-bp Deletion in Populations of South India . . . . . 147

CRISTINA MARTÍNEZ-LABARGA, O. RICKARDS, R. SCACCHI, R.M. CORBO, G. BIONDI, J.A. PEÑA, C. VARAS DE VIEIRA, A.E.B. GUEVARA, M.S. MESA SANTURINO, AND G.F. DE STEFANO. Genetic Population Structure of Two African-Ecuadorian Communities of Esmeraldas. . . . . 159

SIDNEY E. BATISTA DOS SANTOS, J.D. RODRIGUES, A.K.C. RIBEIRO-DOS-SANTOS, AND M.A. ZAGO. Differential Contribution of Indigenous Men and Women to the Formation of an Urban Population in the Amazon Region as Revealed by mtDNA and Y-DNA . . 175

JIM L. RUPERT, DANA V. DEVINE, M. VICTORIA MONSALVE, AND PETER W. HOCHACHKA. β-Fibrinogen Allele Frequencies in Peruvian Quechua, a High-Altitude Native Population . . . . . 181

DANIEL W. SELLEN. Growth Patterns Among Seminomadic Pastoralists (Datoga) of Tanzania . . . . . 187

GABRIELE A. MACHO AND IAIN R. SPEARS. Effects of Loading on the Biochemical Behavior of Molars of *Homo, Pan,* and *Pongo* . . . . . 211

MARGARET A. JUDD AND CHARLOTTE A. ROBERTS. Fracture Trauma in a Medieval British Farming Village . . . 229

CHRISTOPHER M. STOJANOWSKI. Sexing Potential of Fragmentary and Pathological Metacarpals . . . 245

WALTER A. NEVES, A.M. BARROS, AND M.A. COSTA. Incidence and Distribution of Postcranial Fractures in the Prehistoric Population of San Pedro de Atacama, Northern Chile . . . 253

B.M. ROTHSCHILD, B. ARRIAZA, R.J. WOODS, AND OLIVIER DUTOUR. Spondyloarthropathy Identified as the Etiology of Nubian Erosive Arthritis . . . 259

Brief Communication. GIOVANNI DESTRO-BISOL, ERNESTO D'ALOJA, GABRIELLA SPEDINI, ROBERTO SCATENA, BRUNO GIARDINA, AND VINCENZO PASCALI. Resistance to *Falciparum* Malaria in α-Thalassemia, Oxidative Stress, and Hemoglobin Oxidation . . . 269

*Book Reviews*. James H. Kidder and Murray K. Marks . . . 275

## Contents

VOLUME 109
NUMBER 3

JULY 1999

RICARDO M. CERDA-FLORES, SARA A. BARTON, LUISA F. MARTY-GONZALEZ, FERNANDO RIVAS, AND RANAJIT CHAKRABORTY. Estimation of Nonpaternity in the Mexican Population of Nuevo Leon: A Validation Study With Blood Group Markers . . . 281

A. ROBERTO FRISANCHO, PATRICIA C. JULIAO, VERONICA BARCELONA, CARMELA E. KUDYBA, GLENDA AMAYO, GRECIA DAVENPORT, ALICIA KNOWLES, DANI SANCHEZ, MERCEDES VILLENA, ENRIQUE VARGAS, AND RUDY SORIA. Developmental Components of Resting Ventilation Among High- and Low-Altitude Andean Children and Adults . . . 295

ISRAEL HERSHKOVITZ, CHARLES GREENWALD, BRUCE M. ROTHSCHILD, BRUCE LATIMER, OLIVIER DUTOUR, LYMAN M. JELLEMA, AND SUSANNE WISH-BARATZ. Hyperostosis Frontalis Interna: An Anthropological Perspective . . . 303

HIROFUMI MATSUMURA AND MAJID ZURAINA. Metric Analyses of an Early Holocene Human Skeleton From Gua Gunung Runtuh, Malaysia . . . 327

ANN M. MACLARNON AND GWEN P. HEWITT. The Evolution of Human Speech: The Role of Enhanced Breathing Control . . . 341

JOANNA E. LAMBERT. Seed Handling in Chimpanzees (*Pan troglodytes*) and Redtail Monkeys (*Cercopithecus ascanius*): Implications for Understanding Hominoid and Cercopithecine Fruit-Processing Strategies and Seed Dispersal . . . 365

PETER S. UNGAR AND MARK A. SPENCER. Incisor Microwear, Diet, and Tooth Use in Three Amerindian Populations . . . 387

MARK W. HAMRICK, BURT A. ROSENMAN, AND JASON A. BRUSH. Phalangeal Morphology of the Paromomyidae (?Primates, Plesiadapiformes): The Evidence for Gliding Behavior Reconsidered . . . 397

*Book Reviews*. Richard L. Jantz and Milford H. Wolpoff . . . 415

## Contents

VOLUME 109
NUMBER 4

AUGUST 1999

WILSON ARAÚJO DA SILVA, JR., MARIA CÁTIRA BORTOLINI, DIOGO MEYER, FRANCISCO MAURO SALZANO, JACQUES ELION, RAJAGOPAL KRISHNAMOORTHY, MARIA PAULA CRUZ SCHNEIDER, DINORAH CASTRO DE GUERRA, ZULAY LAYRISSE, HERNAN MENDEZ CASTELLANO, TANIA DE AZEVEDO WEIMER, AND MARCO ANTONIO ZAGO. Genetic Diversity of Two African and Sixteen South American Populations Determined on the Basis of Six Hypervariable Loci . . . 425

JOHN C. MITANI AND DAVID P. WATTS. Demographic Influences on the Hunting Behavior of Chimpanzees . . . . . 439

MARY S. MCDONALD PAVELKA AND LINDA MARIE FEDIGAN. Reproductive Termination in Female Japanese Monkeys: A Comparative Life History Perspective . . . . . 455

JUDITH LITTLETON. Palaeopathology of Skeletal Fluorosis . . . . . 465

YOUSUKE KAIFU. Changes in the Pattern of Tooth Wear From Prehistoric to Recent Periods in Japan . . . . . 485

ELISABETTA MARINI, WALTER RACUGNO, AND SILVANA M. BORGOGNINI TARLI. Univariate Estimates of Sexual Dimorphism: The Effects of Intrasexual Variability . . . . . 501

CHRISTOPHER B. RUFF, HENRY M. MCHENRY, AND J. FRANCIS THACKERAY. Cross-Sectional Morphology of the SK 82 and 97 Proximal Femora . . . . . 509

K.D. ROSE, R.D.E. MACPHEE, AND J.P. ALEXANDER. Skull of Early Eocene *Cantius abditus* (Primates: Adapiformes) and Its Phylogenetic Implications, With a Re-evaluation of *"Hesperolemur" actius* . . . . . 523

ALAIN HOULE. The Origin of Platyrrhines: An Evaluation of the Antarctic Scenario and the Floating Island Model . . . . . 541

*Book Reviews*. Liza J. Shapiro and Rose A. Tyson . . . . . 561

Index to Volume 109 . . . . . 567